

THREE NEW *HYPOCHRYSOPS* C. & R. FELDER TAXA FROM THE SOLOMON ISLANDS, INCLUDING A NEW SPECIES FROM THE SANTA CRUZ GROUP (LEPIDOPTERA: LYCAENIDAE)

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Three new taxa of *Hypochrysops* C. & R. Felder are described from the Solomon Islands: *H. architas marie* subsp. nov. from the New Georgia group, *H. julie* sp. nov. from the eastern Santa Cruz group and *H. scintillans jamesi* subsp. nov. from New Georgia.

Introduction

Hypochrysops C. & R. Felder, 1860, occurs from Malaysia and Thailand to the Solomon Islands and contains approximately 60 species. Only one species is confirmed as occurring west of Wallace's Line (Sands 1986) and the genus occurs principally from the Moluccas to the Solomons. Sands (1986) divided *Hypochrysops* into 20 species-groups, incorporating three of the four Solomons species (*H. architas* Druce, 1891, *H. scintillans* (Butler, 1882) and *H. taeniatus* Jordan, 1908) in the *anacletus* species-group and the remaining species, *H. alyattes* Druce, 1891, in the *hippuris* species-group. The most easterly member of the genus previously known is *H. taeniatus*, confined to the island of San Cristobal. Of the remaining Solomons species, *H. architas* occurs in three subspecies from Bougainville to Guadalcanal and Malaita, *H. scintillans* occurs on Guadalcanal and Florida (see discussion), and *H. alyattes* has been reported from the New Georgia group (Gizo), Santa Isabel, Guadalcanal, Florida and Malaita. During recent fieldwork in the Solomon Islands, undescribed subspecies of *H. architas* and *H. scintillans* were collected on New Georgia and an undescribed species was discovered on the Santa Cruz island of Nendo.

***Hypochrysops architas marie* subsp. nov.**

(Figs 1-4, 13)

Types. Holotype ♂, SOLOMON ISLANDS: New Georgia group, New Georgia, west, c. 3 km north of Munda, 100 m, 2.xi.1997, W.J. Tennent (gen. prep. BMNH (V) 4881 (JT349)) (in The Natural History Museum, London [BMNH]). *Paratypes*: 1 ♀, Gizo, xi.1903, Meek; 1 ♂, Rendova, ii.1904, Meek; 1 ♀, same data as holotype, 4.xi.1997; 1 ♀, Rendova, north coast, Mendali Point, 0-160 m, 27.iv.2001, W.J. Tennent (all BMNH); 1 ♀, Gizo, 0-140 m, xii.1980, N.L.H. Krauss (Bernice P. Bishop Museum, Honolulu).

Description. Similar in appearance to other subspecies of *H. architas*. Male (Figs 1-2) forewing length 16.5 mm; upperside clear dark blue, similar to *H. narcissus eucletas* C. & R. Felder, 1865, from Indonesia (purple or purple-blue in *H. a. architas* and *H. a. cratevas* Druce, 1891); upperside forewing

blue area slightly reduced; underside bands red (orange-red in other *H. architas* subspecies). Genitalia (Fig. 13) similar to *H. a. architas*. Female (Figs 3-4) similar to other *H. architas* subspecies on both surfaces.

Etymology. Most of our knowledge of Solomon Islands butterflies stems from the work of Albert Stewart Meek and Charles Morris Woodford. This taxon is named after Marie, Albert Meek's daughter, whom the author was privileged to meet in Brisbane in 1997, aged 92.

***Hypochrysops julie* sp. nov.**

(Figs 5-8, 11)

Types. *Holotype* ♂, SOLOMON ISLANDS: Santa Cruz group, Nendo Island, ca 4 km (by road) south of Lata, 160 m, secondary growth on edge of village garden, 11.x.1997, W.J. Tennent (in BMNH). *Paratypes:* 1 ♂, 1 ♀, same data as holotype; 5 ♂♂, 1 ♀, same data, 10.x.1997 (♂♂ including gen. preps. BMNH (V) 4879 & 4880); 3 ♂♂, 1 ♀, same data, 13.x.1997; 1 ♂, same data, 14.x.1997; 1 ♀, Nendo, south-west central, Forestry camp, 140-160 m, 28.iv.2000, W.J. Tennent; 6 ♂♂, 16 ♀♀, Nendo, Lata to Noipe, 60-140 m, 5.v.2000, W.J. Tennent; 17 ♂♂, 6 ♀♀, same data, 9.v.2000; 5 ♂♂, 2 ♀♀, same data, 12.v.2000; 4 ♂♂, same data, 17.v.2000; 1 ♂, 3 ♀♀, Santa Cruz group, Vanikoro, main island, eastern coastal strip, 2.iv.2000, W.J. Tennent; 1 ♀, Vanikoro, north-east of Lale village, SL-100 m, 4.iv.2000, W.J. Tennent; 1 ♀, Vanikoro, Lale village gardens, 20-140 m, 5.iv.2000, W.J. Tennent; 1 ♀, same data, 6.iv.2000 (all BMNH).

Description. Intermediate in appearance between *H. architas* and *H. taeniatus*. Male (Figs 5-6) forewing length 14 mm; upperside similar to *H. taeniatus*, ground colour dull purple-blue; upperside forewing apex thinly lined black; underside similar to *H. architas*, underside forewing markings less distinct; underside hindwing median, submedian and postbasal bands darker orange than in *H. taeniatus* (red in *H. architas*), broadly bordered iridescent emerald green (pale green in *H. architas*); thin, broken black postmedian line, independent from marginal markings. Genitalia (Fig. 11) typical of *anacletus* group; posterior of sociuncus deeply indented dorsally; valva similar to *H. taeniatus*, less deeply indented anteriorly. Female (Figs 7-8) upperside dark brown; upperside forewing with indistinct pale discal patch, tinged violet-blue distad; basal blue suffusion characteristic of *H. architas* and *H. taeniatus* lacking; upperside hindwing unmarked; underside markings similar to male, metallic green markings less extensive.

Etymology. This attractive new species is named after the author's wife Julie, who continues to support his long periods in the field.

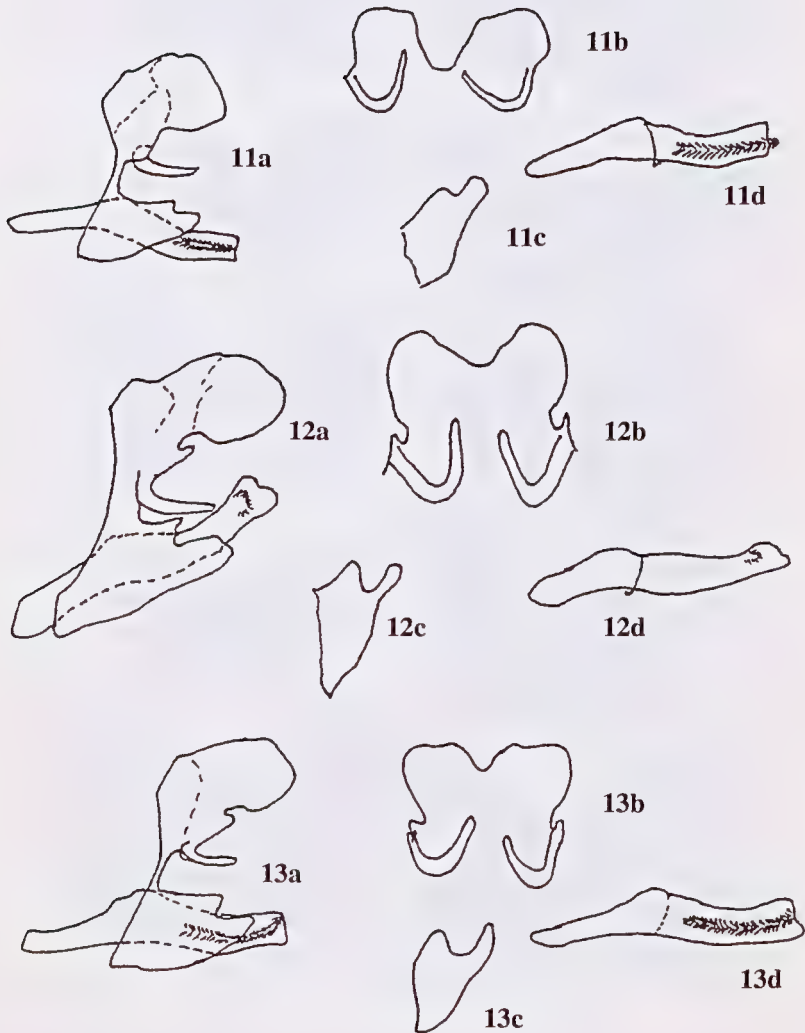
***Hypochrysops scintillans jamesi* subsp. nov.**

(Figs 9-10, 12)

Types. *Holotype* ♂, SOLOMON ISLANDS: New Georgia group, New Georgia, west, c. 3 km north of Munda, 100 m, 4.xi.1997, W.J. Tennent (in BMNH). *Paratype* ♂, same data as holotype (gen. prep. BMNH (V) 4882 (JT348)) (BMNH).



Figs 1-10. New *Hypochrysops* taxa. (1-4) *H. architas marie*: (1) male upperside (Rendova paratype); (2) male underside (holotype); (3) female upperside (Rendova paratype); (4) female underside (New Georgia paratype). (5-8) *H. julie*: (5) male upperside (Vanikoro paratype); (6) male underside (holotype); (7) female upperside (Nendo paratype); (8) female underside (Nendo paratype). (9-10) *H. scintillans jamesi*: (9) male upperside (paratype); (10) male underside (holotype). Scale = 1 cm.



Figs 11-13. *Hypochrysops* species, male genitalia: a, genitalia; b, sociuncus; c, valva (left); d, aedeagus. (11) *H. julie*; (12) *H. scintillans jamesi*; (13) *H. architas marie*.

Description. Male (Figs 9-10) similar to *H. s. constancea* D'Abrera, 1971; larger, forewing length 20 mm; upperside blue darker, less purple; upperside forewing with distal edge of blue discal patch prominently sagittate; upperside hindwing blue less extensive at apex than *H. s. constancea*; underside red and iridescent gold markings bold; underside ground colour olive-brown (yellow-brown in *H. s. constancea*); underside forewing basal area suffused orange (lacking in the only male of *H. s. constancea* seen). Genitalia (Fig. 12) similar to *H. s. scintillans*. Female unknown.

Etymology. Charles Morris Woodford, the first Resident Commissioner of the Solomon Islands, was the first person to collect butterflies systematically there (Tennent 1999). This taxon is named after Jim Woodford, Charles' great-nephew and traveller/adventurer in his own right, who was generous in his hospitality during the author's field visits to the Solomons between 1997 and 2000.

Discussion

The Solomon archipelago, which includes the large island of Bougainville (politically part of Papua New Guinea), is a significant area of endemism and New Georgia group populations of a number of butterfly species are distinct from populations found on adjacent island groups. Discovery of a *Hypochrysops* species in the Santa Cruz group, politically part of the Solomon Islands but faunistically also allied to the islands of Vanuatu to the south, represents a significant easterly extension of the range of this genus.

Aside from *H. s. jamesi*, described above, the only subspecies of *H. s. scintillans* known from the Solomon Islands is *H. s. constancea*. The female holotype of the latter taxon is from Guadalcanal and was illustrated by D'Abrera (1971), but appears not to have been labelled as such until Sands' (1986) revision. It now bears an additional label marked 'Holotype, *Hypochrysops scintillans constantacea* [sic], examined by D. Sands, 1984'. No paratypes were designated by D'Abrera but, judging from material available at that time in the BMNH, they comprised a second female with similar data to the holotype, a further female labelled 'Tugela (Woodford)' and a male labelled 'Gela, Woodford', all of which have now been labelled. 'Gela', or Nggela, is a name for the island now more usually known as Florida. The locality known as 'Tugela' is more problematic and it is not certain that an island or place of this name exists, or has ever existed. Although the name appears on several Solomons labels, usually (but not exclusively) associated with Woodford material and often (but not in this case) with Guadalcanal, it does not appear on any map, nor does it appear in the comprehensive Pacific gazetteers in use at the time of Woodford. The name is not mentioned in any of the numerous publications of Woodford, including a book (Woodford 1890) in which he gave an account of his life in the Solomons and the places he visited. The Solomon Islands Government Archivist in Honiara has no record of the name (Mr Ishmail Avui, pers.

comm.). Although less likely, it is possible that the name is a corruption of 'Tulagi', a small island in the Florida group and the pre-Second World War national capital of the Solomon Islands.

The distribution of *H. s. constancea* was given by D'Abrera (1971, 1978, 1990) as 'Guadalcanal, Tugela' and, regardless of whether 'Tugela' exists or existed on Guadalcanal, or whether it in fact refers to Tulagi, the known distribution of *H. s. constancea* may be taken as Guadalcanal and Florida.

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